

AMENDMENTS TO THE CLAIMS

Listing of Claims:

1. (Original) A liquid crystal display device, comprising:
a liquid crystal display panel having a plurality of data lines and a plurality of scanning lines crossing each other and liquid crystal pixel cells arranged in a matrix;
a data driver circuit for supplying data to the data lines;
a scanning driver circuit for supplying scanning signals to the scanning lines; and
control means for controlling the data driver circuit and the scanning driver circuit,
wherein said control means controls the scanning driver circuit such that the liquid crystal display panel is scanned in a reverse-sequential manner upon testing of the liquid crystal display panel.
2. (Original) The liquid crystal display device according to claim 1, further comprising a switching device arranged at each intersection between the data lines and the scanning lines to drive the liquid crystal pixel cell in response to the scanning signal.
3. (Original) The liquid crystal display device according to claim 2, wherein said switching device consists of a thin film transistor including a gate electrode connected to a corresponding one of the scanning lines to receive the scanning signal; a source electrode connected to a corresponding one of the data lines to receive said data; and a drain electrode opposed to the source electrode with a desired channel therebetween and connected to a pixel electrode for driving the liquid crystal pixel cell.

4. (Original) The liquid crystal display device according to claim 1, wherein said control means generates a gate start pulse for indicating a start position of the scanning signal, a mode setting signal for assigning an application direction of the scanning signal to any one of a forward direction and a reverse direction, and an output enable signal for controlling an output of the scanning driver circuit.

5. (Original) The liquid crystal display device according to claim 1, wherein said control means applies a dot clock for indicating an application time of said data to the data driver circuit.

6. (Original) The liquid crystal display device according to claim 1, wherein said scanning driver circuit consists of a bilateral shift resistor in which its shift direction is controlled in response to a mode setting signal.

7. (Original) The liquid crystal display device according to claim 1, wherein said control means controls the scanning driver circuit such that the liquid crystal display panel is scanned in a forward-sequential manner upon normal operation of the liquid crystal display panel.

8. (Original) A method of testing a liquid crystal display panel including a plurality of scanning lines, comprising:

setting the scanning lines to a reverse scanning mode;
scanning the scanning lines in a sequence proceeding from low-order lines to high-order lines to display a test picture; and
detecting a defect from the test picture displayed on the liquid crystal display panel.

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Reply to non-final Office Action dated August 5, 2004

9. (Original) The method according to claim 8, wherein scanning the scanning lines includes driving a drive circuit for driving said low-order lines and thereafter driving a drive circuit for driving said high-order lines.

10. (Original) The method according to claim 8, wherein said reverse mode is set by a mode setting signal that is applied to a scanning driver circuit generating a scanning signal, to thereby indicate an application direction of the scanning signal.

11. (Currently Amended) The method according to claim 8, wherein scanning the scanning lines in a sequence proceeding from low-order lines to high-order lines comprises shifting a shift register in a reverse direction.[[from]]

12. (Original) A liquid crystal display device, comprising:
a liquid crystal display panel having a plurality of data lines and a plurality of gate lines crossing each other and liquid crystal pixel cells arranged where the gate lines cross the data lines;
a data driver circuit for supplying data to the data lines;
a gate driver circuit for sequentially supplying a gate signal to the gate lines in a forward sequential order upon normal operation, and sequentially supplying the gate signal to the gate lines in a reverse sequential order upon testing the device.

13. (Original) The liquid crystal display device of claim 12, wherein the gate driver circuit comprises a shift register having a control terminal for controlling a sequential order of supplying the gate signal to the gate lines.

14. (Original) The liquid crystal display device of claim 12, further comprising a controller supplying a mode setting signal to the control terminal.

15. (Original) A method of testing a liquid crystal display panel, having a plurality of data lines and a plurality of gate lines crossing each other and a plurality of liquid crystal pixel cells arranged where the gate lines cross the data lines, the method comprising:

applying data voltages to the data lines;

applying a mode setting signal to a gate driver connected with the gate lines;

sequentially scanning the gate lines in a direction identified by the mode setting signal to display a test pattern on the display panel; and

identifying any defective pixel cells among the plurality of liquid crystal pixel cells from the test pattern.